

Torben Obel Sonnenborg

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

2,703
citations

201674

27
h-index

197818

49
g-index

72
all docs

72
docs citations

72
times ranked

2821
citing authors

#	ARTICLE	IF	CITATIONS
1	The influence of layer and voxel geological modelling strategy on groundwater modelling results. <i>Hydrogeology Journal</i> , 2022, 30, 617-635.	2.1	2
2	Are maps of nitrate reduction in groundwater altered by climate and land use changes?. <i>Hydrology and Earth System Sciences</i> , 2022, 26, 955-973.	4.9	6
3	Impacts of land use, climate change and hydrological model structure on nitrate fluxes: Magnitudes and uncertainties. <i>Science of the Total Environment</i> , 2022, 830, 154671.	8.0	15
4	Quantification of climate change sensitivity of shallow and deep groundwater in Denmark. <i>Journal of Hydrology: Regional Studies</i> , 2022, 41, 101100.	2.4	4
5	The effect of weighting hydrological projections based on the robustness of hydrological models under a changing climate. <i>Journal of Hydrology: Regional Studies</i> , 2022, 41, 101113.	2.4	3
6	Climate change impacts and uncertainty on spatiotemporal variations of drought indices for an irrigated catchment. <i>Journal of Hydrology</i> , 2021, 601, 126814.	5.4	15
7	Simulation of Density and Flow Dynamics in a Lagoon Aquifer Environment and Implications for Nutrient Delivery From Land to Sea. <i>Frontiers in Water</i> , 2021, 3, .	2.3	1
8	Comparison of evapotranspiration estimates using the water balance and the eddy covariance methods. <i>Vadose Zone Journal</i> , 2020, 19, e20032.	2.2	16
9	Observational and predictive uncertainties for multiple variables in a spatially distributed hydrological model. <i>Hydrological Processes</i> , 2019, 33, 833-848.	2.6	24
10	Origin and Dynamics of Saltwater Intrusion in a Regional Aquifer: Combining 3D Saltwater Modeling With Geophysical and Geochemical Data. <i>Water Resources Research</i> , 2019, 55, 1792-1813.	4.2	62
11	Modelling of the shallow water table at high spatial resolution using random forests. <i>Hydrology and Earth System Sciences</i> , 2019, 23, 4603-4619.	4.9	53
12	Effects of changes in land use and climate on aquatic ecosystems: Coupling of models and decomposition of uncertainties. <i>Science of the Total Environment</i> , 2019, 657, 627-633.	8.0	48
13	Estimation of effective porosity in large-scale groundwater models by combining particle tracking, auto-calibration and ^{14}C dating. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 4843-4865.	4.9	12
14	A conceptual model for groundwater discharge to a coastal brackish lagoon based on seepage measurements (Roskilde Fjord, Denmark). <i>Hydrological Processes</i> , 2018, 32, 3352-3364.	2.6	17
15	Regional flow in a complex coastal aquifer system: Combining voxel geological modelling with regularized calibration. <i>Journal of Hydrology</i> , 2018, 562, 544-563.	5.4	21
16	Moving beyond runoff calibration: Multivariable optimization of a surface-atmosphere model. <i>Hydrological Processes</i> , 2018, 32, 2654-2668.	2.6	42
17	Modelling a real-world buried valley system with vertical non-stationarity using multiple-point statistics. <i>Hydrogeology Journal</i> , 2017, 25, 359-370.	2.1	8
18	Analyzing the hydrological impact of afforestation and tree species in two catchments with contrasting soil properties using the spatially distributed model MIKE SHE SWET. <i>Agricultural and Forest Meteorology</i> , 2017, 239, 118-133.	4.8	22

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19	Aquifer Vulnerability Assessment Based on Sequence Stratigraphic and ³⁹Ar</sup> Transport Modeling. Ground Water, 2016, 54, 214-230.	1.3	11
20	Nitrate vulnerability assessment of aquifers. Environmental Earth Sciences, 2016, 75, 1.	2.7	28
21	Combined effects of climate models, hydrological model structures and land use scenarios on hydrological impacts of climate change. Journal of Hydrology, 2016, 535, 301-317.	5.4	156
22	Climate change impacts on groundwater hydrology â€“ where are the main uncertainties and can they be reduced?. Hydrological Sciences Journal, 2016, 61, 2312-2324.	2.6	31
23	Effects of geologic heterogeneity on migration of gaseous CO2 using laboratory and modeling investigations. International Journal of Greenhouse Gas Control, 2015, 43, 213-224.	4.6	22
24	Spatial uncertainty in bias corrected climate change projections and hydrogeological impacts. Hydrological Processes, 2015, 29, 4514-4532.	2.6	13
25	Numerical modeling of salinity distribution and submarine groundwater discharge to a coastal lagoon in Denmark based on airborne electromagnetic data. Hydrogeology Journal, 2015, 23, 217-233.	2.1	26
26	Monitoring CO2 gas-phase migration in a shallow sand aquifer using cross-borehole ground penetrating radar. International Journal of Greenhouse Gas Control, 2015, 37, 287-298.	4.6	27
27	Projected Changeâ€”Hydrology. Regional Climate Studies, 2015, , 235-241.	1.2	4
28	Effect of a high-end CO2-emission scenario on hydrology. Climate Research, 2015, 64, 39-54.	1.1	19
29	Climate model uncertainty versus conceptual geological uncertainty in hydrological modeling. Hydrology and Earth System Sciences, 2015, 19, 3891-3901.	4.9	12
30	The effect of training image and secondary data integration with multiple-point geostatistics in groundwater modelling. Hydrology and Earth System Sciences, 2014, 18, 2943-2954.	4.9	17
31	Historical trends in precipitation and stream discharge at the Skjern River catchment, Denmark. Hydrology and Earth System Sciences, 2014, 18, 595-610.	4.9	26
32	Transition probabilityâ€“based stochastic geological modeling using airborne geophysical data and borehole data. Water Resources Research, 2014, 50, 3147-3169.	4.2	81
33	A framework for testing the ability of models to project climate change and its impacts. Climatic Change, 2014, 122, 271-282.	3.6	104
34	Cosmic-ray neutron intensity measurements of soil moisture â€“ A case study in the Skjern catchment, Denmark. , 2014, , .		0
35	Evaluation of the value of radar QPE data and rain gauge data for hydrological modeling. Water Resources Research, 2013, 49, 5989-6005.	4.2	23
36	Assessment of robustness and significance of climate change signals for an ensemble of distribution-based scaled climate projections. Journal of Hydrology, 2013, 486, 479-493.	5.4	52

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37	Assessing impacts of climate change, sea level rise, and drainage canals on saltwater intrusion to coastal aquifer. <i>Hydrology and Earth System Sciences</i> , 2013, 17, 421-443.	4.9	100
38	Estimation of Regional Groundwater Recharge Using Data from a Distributed Soil Moisture Network. <i>Vadose Zone Journal</i> , 2013, 12, 1-18.	2.2	19
39	Review of strategies for handling geological uncertainty in groundwater flow and transport modeling. <i>Advances in Water Resources</i> , 2012, 36, 36-50.	3.8	206
40	Assessment of hydrological model predictive ability given multiple conceptual geological models. <i>Water Resources Research</i> , 2012, 48, .	4.2	65
41	Threshold values and management options for nutrients in a catchment of a temperate estuary with poor ecological status. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 2663-2683.	4.9	26
42	Transboundary geophysical mapping of geological elements and salinity distribution critical for the assessment of future sea water intrusion in response to sea level rise. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 1845-1862.	4.9	75
43	Climate change effects on irrigation demands and minimum stream discharge: impact of bias-correction method. <i>Hydrology and Earth System Sciences</i> , 2012, 16, 4675-4691.	4.9	25
44	Assessment of climate change impacts on the quantity and quality of a coastal catchment using a coupled groundwater-surface water model. <i>Climatic Change</i> , 2012, 113, 1025-1048.	3.6	14
45	Statistical analysis of the impact of radar rainfall uncertainties on water resources modeling. <i>Water Resources Research</i> , 2011, 47, .	4.2	24
46	Evaluation of Climate Input Biases and Water Balance Issues Using a Coupled Surface-Subsurface Model. <i>Vadose Zone Journal</i> , 2011, 10, 37-53.	2.2	60
47	Salinity Distribution in Heterogeneous Coastal Aquifers Mapped by Airborne Electromagnetics. <i>Vadose Zone Journal</i> , 2011, 10, 125-135.	2.2	79
48	Comparison of Hydrological Simulations of Climate Change Using Perturbation of Observations and Distribution-Based Scaling. <i>Vadose Zone Journal</i> , 2011, 10, 136-150.	2.2	42
49	An Operational Weather Radar-Based Quantitative Precipitation Estimation and its Application in Catchment Water Resources Modeling. <i>Vadose Zone Journal</i> , 2011, 10, 8-24.	2.2	21
50	Impact of Precipitation Spatial Resolution on the Hydrological Response of an Integrated Distributed Water Resources Model. <i>Vadose Zone Journal</i> , 2011, 10, 25-36.	2.2	41
51	Model analysis of mechanisms controlling pneumatic soil vapor extraction. <i>Journal of Contaminant Hydrology</i> , 2009, 103, 82-98.	3.3	8
52	Deep saltwater in Chalk of North-West Europe: origin, interface characteristics and development over geological time. <i>Hydrogeology Journal</i> , 2009, 17, 1643-1663.	2.1	27
53	Modelação hidroestratigráfica 3D à escala regional baseada em métodos de sequência estratigráfica: um caso de estudo da sucessão no Miocénico na Dinamarca. <i>Hydrogeology Journal</i> , 2009, 17, 1913-1933.	2.1	31
54	Impact of climate and land use change on the hydrology of a large-scale agricultural catchment. <i>Water Resources Research</i> , 2009, 45, .	4.2	113

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55	Quantifying the effects of future climate change on groundwater and stream discharge in Denmark. IOP Conference Series: Earth and Environmental Science, 2009, 6, 292007.	0.3	3
56	Use of alternative conceptual models to assess the impact of a buried valley on groundwater vulnerability. Hydrogeology Journal, 2008, 16, 659-674.	2.1	47
57	Regional Differences in Climate Change Impacts on Groundwater and Stream Discharge in Denmark. Vadose Zone Journal, 2007, 6, 554-571.	2.2	115
58	Experimental investigation of pneumatic soil vapor extraction. Journal of Contaminant Hydrology, 2007, 89, 29-47.	3.3	14
59	Chapter 9.3. Evaluation of the Quantitative Status of Groundwaterâ€“Surface Water Interaction at a National Scale. , 2007, , 584-607.		3
60	KlimaÃ¸ndringer - pÃ¸virkning af grundvand og vandlÃ¸b. GeologiskNyt, 2007, 17, .	0.0	0
61	Three-Dimensional Numerical Modeling of Steam Override Observed at a Full-Scale Remediation of an Unconfined Aquifer. Ground Water Monitoring and Remediation, 2005, 25, 116-127.	0.8	4
62	Remediation of NAPL below the water table by steam-induced heat conduction. Journal of Contaminant Hydrology, 2004, 72, 207-225.	3.3	18
63	On spurious water flow during numerical simulation of steam injection into water-saturated soil. Journal of Contaminant Hydrology, 2004, 75, 297-318.	3.3	7
64	Capture zone, travel time, and solute-transport predictions using inverse modeling and different geological models. Hydrogeology Journal, 2003, 11, 536-548.	2.1	46
65	Transient modeling of regional groundwater flow using parameter estimates from steady-state automatic calibration. Journal of Hydrology, 2003, 273, 188-204.	5.4	56
66	Methodology for construction, calibration and validation of a national hydrological model for Denmark. Journal of Hydrology, 2003, 280, 52-71.	5.4	301
67	Removal of NAPLs from the unsaturated zone using steam: prevention of downward migration by injecting mixtures of steam and air. Journal of Contaminant Hydrology, 2002, 55, 233-260.	3.3	41
68	Laboratory and Numerical Investigations of Air Sparging Using MTBE as a Tracer. Ground Water Monitoring and Remediation, 2000, 20, 87-95.	0.8	8
69	Aqueous flow and transport in analog systems of fractures embedded in permeable matrix. Water Resources Research, 1999, 35, 719-729.	4.2	15
70	Contaminant Transport at a Waste Residue Deposit: 1. Inverse Flow and Nonreactive Transport Modeling. Water Resources Research, 1996, 32, 925-938.	4.2	24